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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.
08/987,775	12/09/97	GREFENSTEIN	A	47587/48070

IM62/0524

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EXAMINER	
KRUER,K	
ART UNIT	**PAPER NUMBER**
1773	8

DATE MAILED: 05/24/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 08/987,775	Applicant(s) Grefenstein et al
	Examiner Kevin Kruer	Group Art Unit 1773

☒ Responsive to communication(s) filed on *Feb 23, 2000*.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1, 2, 4, 5, 7, 8, 15-19, and 21-23* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1, 2, 4, 5, 7, 8, 15-19, and 21-23* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Claim Objections

1. The examiner requests that applicant reword the claims in order to make them more readable. There are numerous ambiguities in the current claim notation. The (1), (2), and (3) notations do not seem to be necessary. Further, the notation used to describe the composition of claim 1 is ambiguous. For example, A1 could be described as a particulate graph base comprising 80-99.9% by weight of an acrylic ester and 0.01-20wt% of a polyfunctional crosslinker. In claim 5, the phrase "the same materials" would read more clearly as polyamide, since the only time both layers may comprise the same material is when that material is polyamide. Furthermore, in claim 5, the overall thickness of the laminate should read "100 to 1000um."

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It is not clear from the amendment where support for an ASA intermediate is found in the originally filed specification.

4. Claim 21 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled

in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no teaching of a laminate comprising a back coating applied to a polyamide or polyamide blend substrate.

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 5, 16, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Ellison (Pat. No. Re35,894). Ellison teaches a molded article which comprises a weatherable topcoat, a molded polymer substrate (abstract), and a binding layer (col 5, line 50 - col 6, line 30). Polymethyl methacrylate may be utilized as the weatherable topcoat (col 4, lines 24-61) and has a thickness of 12.7 to 7,600 microns (col 6, lines 43-48). The molded article in Ellison may be in the form of an automotive exterior bodywork component (see Fig 4) and comprises a polymer with engineering properties such as nylon (a.k.a. a polyamide) (col 5, lines 33-35).

Claim Rejections - 35 USC § 103

7. Claims 1, 4, 7, 15, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellison et al. (Pat. No. Re 35,894) in view of Fischer et al. (Pat. No. 5,747,568). Ellison teaches a molded article which comprises a weatherable topcoat, a molded polymer substrate (abstract), and a binding layer (col 5, line 50 - col 6, line 30). Polymethyl methacrylate may be utilized as the weatherable topcoat (col 4, lines 24-61) and has a thickness of 12.7 to 7,600 microns (col 6, lines 43-48). A clear coat may be applied over the weatherable topcoat (col 4, lines 15-23). The examiner takes the position that such a coating would inherently function as a

protective coating. The binding layer may be an acrylic adhesive and has a thickness greater than 6.35 microns (col 6, lines 30-34). The molded article in Ellison may be in the form of an automotive exterior bodywork component (see Fig 4) and comprise a polymer with engineering properties (col 5, lines 33-35).

Ellison does not teach that the substrate may comprise the claimed composition. However, Fischer teaches a molding material comprising 30-80% of an elastomeric grafting base and 20-70% by weight of a shell grafted onto the grafting base (abstract). The grafting base comprises 90-99.9% of at least one alkyl acrylate and 0.1-10%by weight of a polyfunctional crosslinking monomer. The shell comprises 0-100% styrene or substituted styrenes, and 0-100% of an acrylonitrile or methyl methacrylate. The above described particles are dispersed in a hard matrix comprising 60-90% styrene or substituted styrene and 10-40% acrylonitrile (col 1, line 48-col 2, line 16). The composition may further contain up to 30% by weight of additives such as fibers (col 4, lines 26-34). This composition is suitable for molded automobile parts because of its good weather resistance, aging resistance, and high impact strength (col 4, lines 46-53). Furthermore, such ASA resins are known to be engineering plastics. It would have been obvious to one of ordinary skill in the art to utilize the composition as taught in Fischer as the substrate of the laminate taught in Ellison because Ellison teaches that polymers suitable for automotive parts and possessing engineering properties may be used as the substrate and Fischer teaches an engineering plastic composition which may be used in the construction of automotive parts and which has superior heat-aging resistance.

8. Claims 2, 17, 21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellison et al. (Pat. No. Re 35,894) in view of Fischer et al. (Pat. No. 5,747,568) as applied to claims 1, 4, 7, 15, 18, and 19, above. Ellison in view of Fischer is relied upon as above. Neither Ellison nor Fischer teaches that the laminate may be back sprayed, backcast, or laminated to a second layer comprising the ASA composition of claim 1. However, the courts have held that the mere duplication of parts has no patentable significance unless a new and unexpected product is produced. Therefore, the examiner takes the position that it would have been obvious to have a laminate comprising two or more ASA engineering plastics layers which comprise the molded substrate because the courts have held that the mere duplication of parts has no patentable significance unless a new and unexpected product is produced. Such duplication of the substrate would be desirable in order to reduce processing cost, ease processing conditions. Therefore, Ellison in view of Fischer reads on a laminate wherein the intermediate layer is ASA, and wherein the backsprayed/backcast/laminated layer comprises the composition of claim 1.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellison et al. (Pat. No. Re 35,894) in view of Fischer et al. (Pat. No. 5,747,568), as applied to claims 1, 4, 7, 15, 18, and 19, above. Ellison in view of Fischer is relied upon as above. Neither Ellison nor Fischer teaches the ratio of the MFI values of the components should be no more than 3:1. However, the examiner takes the position that it would have been obvious to one of ordinary skill in the art to process the components of the laminate taught in Ellison so that the ratio of the MFI values of the components was not more than 3:1 so to ensure uniform flow of the components. This is

important when the laminate are coextruded because it is desirable that the components are extrudable at approximately the same rate in order to ease processing.

10. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellison et al. (Pat. No. Re 35,894) in view of Fischer et al. (Pat. No. 5,747,568), as applied to claims 1, 4, 7, 15, and 18, above, and further in view of Leca et al. (Pat. No. 5,279,883). Ellison in view of Fischer is relied upon as above. Neither Ellison nor Fischer teaches that a removable protective coat may be applied over the PMMA layer. However, Leca teaches that paper or ethylene polymer films have traditionally been applied over PMMA layers to protect them during transport and handling (col 1, lines 26-36). Therefore, the examiner takes the position that it would have been obvious to one of ordinary skill in the art to apply a removable protective layer to the PMMA top coat taught by Ellison because it is well known in the art to apply paper or ethylene polymer films over PMMA layers to protect them during transport and handling.

Response to Arguments

11. Applicants' arguments with respect to claims 1-8 and 15-20 have been considered but are moot in view of the new ground(s) of rejection. However, in hopes of expediting the prosecution of the claims, the examiner would like to take this opportunity to respond to some of the arguments which might still be relevant.

Applicants argue that it would not have been obvious to one of ordinary skill in the art to replace the substrate of Ellison with the claimed ASA polymer. However, the examiner would like to point out that the teaching of Ellison is not limited to ABS substrates, but rather to substrates with engineering properties. Since ASA is a known engineering plastic, and because

Ellison and Fischer are both drawn to molded automotive parts, the examiner maintains the references are properly combinable. While Applicant's specification seems to support the argument that superior results are obtained when ASA is used as the substrate rather than ABS, Applicant is not comparing the claimed embodiment to the closest embodiment taught in the prior art.

Applicants also argue that Fischer does not teach the use of the ASA composition in a laminate. The examiner would like to point out that Fischer was never relied upon for such a teaching. Rather, Ellison taught that PMMA coatings are desirably coated onto engineering plastic substrates used in automotive parts because decorative and weatherable purposes.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure. Rosenau et al. (Pat. No. 5,821,302) and Lin et al. (Pat. No. 5,795,936) teaches the claimed composition.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R. Kruer whose telephone number is (703) 305-0025. The examiner can normally be reached on Monday-Friday from 7:00 a.m. to 4:00 p.m.

Kevin R. Kruer
Patent Examiner

Paul Thibodeau
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